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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,734	01/12/2001	Sandra Hutchins	05313P002	9760

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EXAMINER

ARMSTRONG, ANGELA A

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/759,734

Applicant(s)

HUTCHINS, SANDRA

Examiner

Angela A. Armstrong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 14-16, 19-23, 25-28, 32-35, 37-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Zinser et al (US Patent No. 6,138,092), hereinafter referred to as Zinser.

As per claims 14, 26, Zinser discloses a method comprising:

receive a plurality of signals form a first transmission device, (see Fig. 1, item 102);
encode the plurality of signals in a compressed format, (see col. 4, lines 31-35); and transmit the plurality of signals in a compressed format through a transmission medium at variable frame rates based on a plurality of prioritized parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality, (see col. 5, lines 1-40; col. 4, lines 54-56; col. 14, lines 35-60 and Fig. 1).

As per claims 20, 33, Zinser discloses a method comprising:

receive a plurality of signals form a first transmission device in a compressed format through a transmission medium at variable frame rates based on a plurality of prioritized parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality, (see Fig. 5 and Fig. 1, items 20, 17, 21; col. 15, lines 20-30);

Decode the plurality of signals and transmit the decoded signals to a first receiving device, (see Fig. 1, item 20 and 107).

As per claim 40, Zinser discloses an apparatus comprising: means for encoding a plurality of input signals at variable frame rates, the means for encoding including: means for

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identifying input signal segments, (see Fig. 1, item 102); means for extracting a plurality of parameters describing signal segments, (see col. 5, lines 1-40); and means for associating priority values to the plurality of parameters (col. 5, lines 1-40; col. 4, lines 45-56).

As per claim 42, Zinser discloses an apparatus comprising: means for decoding a plurality of compressed signals; the decoding means including: means for reconstructing parameters from the plurality of compressed signals; means for constructing an excitation signal; means for producing a raw output signal; and means for producing a final output signal.

As per claim 15, Zinser discloses a method wherein the transmission rate of the plurality of compressed signals is dynamically set, (see col. 14, lines 35-60).

As per claims 16, Zinser discloses a method wherein the plurality of compressed signals are speech signals, (see Abstract and col. 8, lines 36-48).

As per claim 19, Zinser discloses a method wherein a priority level of each of the plurality of prioritized parameters is based on quality of speech, (see col. 5, lines 5-40).

As per claims 21-22, 24-25, 27-28, 31-32, 34-35, 37-39, 41, and 43, claims 21-22, 24-25, 27-28, 31-32, 34-35, 37-39, 41, and 43 are similar in scope and content to claims 14-16 and 19 rejected above, and therefore claims 21-22, 24-25, 27-28, 31-32, 34-35, 37-39, 41, and 43 are rejected under the same rationale.

Claim Rejections - 35 USC § 103

2. Claims 1-13, 17-18, 23, 29-30, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zinser in view of Bergstrom et al (US Patent No. 5,809,459).

As per claim 1, Zinser discloses an apparatus comprising an encoder for compressing a plurality of signals at variable frame rates (see col. 7, lines 13-14), based on a plurality of prioritized parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality, (see col. 4, lines 31-35; col. 5, lines 1-40; col. 4, lines 54-56; col. 14, lines 35-60).

Zinser fails to explicitly teach an apparatus wherein the encoder comprises an epoch locator unit, a first and second epoch analyzer and a frame assembler unit. However, these features were well known in the art of speech compression.

In a similar field of endeavor, Bergstrom discloses an encoder comprising an epoch locator unit, (see Fig. 1, item 110), a first and second epoch analyzer, (see Fig. 8 and Fig. 9) and a frame assembler unit (Fig. 10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an encoder comprising an epoch locator unit, a first and second epoch analyzer and a frame assembler as taught by Bergstrom, for the purpose of improving speech compression rates without significant loss of quality.

As per claim 2, Zinser discloses a method wherein the transmission rate of the plurality of compressed signals is dynamically set, (see col. 14, lines 35-60).

As per claims 3, Zinser discloses a method wherein the plurality of compressed signals are speech signals, (see Abstract and col. 8, lines 36-48).

As per claim 8, Zinser discloses a method wherein a priority level of each of the plurality of prioritized parameters is based on quality of speech, (see col. 5, lines 5-40).

As per claim 9, Zinser discloses a parameter decoding unit coupled to an excitation generator, (see col. 15, lines 19-30). A synthesizing filter coupled to the excitation generator,

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(see col. 15, lines 31-36). An output scaling and filtering unit coupled to the synthesizing filter, (see col. 15, lines 41-44). Additionally, Zinser discloses an apparatus comprising an decoder for decompressing a plurality of signals at variable frame rates based on a plurality of prioritized parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality, (see Fig. 5; col. 15, lines 20-30; col. 14, lines 35-60).

Zinser fails to explicitly teach an apparatus wherein the decoder comprises a frame disassembler unit. However, implementation of this feature was well known in the art of speech compression.

In a similar field of endeavor, Bergstrom discloses a decoder comprising a frame disassembler unit (see Figure 29; col. 18, lines 7-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a decoder comprising a frame disassembler as taught by Bergstrom, for the purpose of improving speech compression and synthesis without significant loss of quality.

As per claims 4-7, 10-13, 17-18, 23, 29-30, and 36, claims 4-7, 10-13, 17-18, 23, 29-30, and 36 are similar in scope and content to claims 1-3 and 8-9 rejected above, and therefore claims 4-7, 10-13, 17-18, 23, 29-30, and 36 are rejected under the same rationale.

Response to Arguments

3. Applicant's arguments filed December 19, 2002, have been fully considered but they are not persuasive.

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Applicant argues that Zinser does not disclose, teach, or suggest compressing or decompressing a plurality of signals at variable frame rates based on a plurality of prioritized parameters to dynamically reduce signal bandwidth while preserving signal quality. The Examiner disagrees and argues that at col. 14, lines 35-60 Zinser teaches compression of signals at variable frame rates is performed dynamically. Thus, the dynamic setting of variable frame rates would necessarily dynamically reduce signal bandwidth.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one of ordinary skill would recognize the advantages of the implementation of the epoch locator unit, a first and second epoch analyzer and a frame assembler as taught by Bergstrom, for the purpose of improving speech compression rates without significant loss of quality.

Applicant argues that neither Zinser, Bergstrom nor the combination disclose, teach or suggest all the limitations of claims 1, 9, 14, 20, 26, and 33. In response, the Examiner argues that Zinser teaches the limitations as claimed in claims 14, 20, 26, and 33, as indicated in the rejection and arguments above. With respect to claims 1 and 9, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re*

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Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Specifically, Zinser was cited as teaching compressing or decompressing a plurality of signals at variable frame rates based on a plurality of prioritized parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality. Bergstrom was cited as teaching implementation of an epoch locator unit, a first and second epoch analyzer, a frame assembler unit, and a frame disassemble unit in a coder/decoder system. Thus the combination of Zinser and Bergstrom would provide for a compressing system implementing an epoch locator, a first and second epoch analyzer and a frame assembler unit to effectively encode a plurality of signals at variable frame rates based on a plurality of prioritized parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality, and a decompressing system implementing a frame disassemble unit to effectively decode a plurality of signals at variable frame rates based on a plurality of prioritized parameters to dynamically reduce signal bandwidth while preserving perceptual signal quality.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

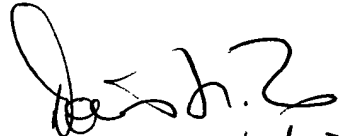
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Angela A. Armstrong
Examiner
Art Unit 2654

AAA
March 5, 2003


3/10/03
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